

FOR EDUCATIONAL PURPOSES ONLY

The individual clinician is in the best position to determine which tests are most appropriate for a particular patient.

Procedure, test to order or evaluate

Result of Test

Outcome or diagnosis

ANA Testing Guidelines

Washington State Clinical Laboratory Advisory Council

History and physical examination (H&P)

SLE or Connective Tissue Disease suspected

ANA

ANA
ENA
SLE
SSA
SSB
SSc
CTD
MCTD
Scl-70
Jo-1
Sm
CREST
RNP

Anti Nuclear Antibodies
Extractable Nuclear Antigen
Systemic Lupus Erythematosus
Sjogren's Syndrome A Antibody
Sjogren's Syndrome B Antibody
Systemic Sclerosis
Connective Tissue Disease
Mixed Connective Tissue Disease
Antibody to Scl-70 (topoisomerase I)
Antibody to histidyl transfer RNA synthetase
Smith Antibody
Calcinosis, Raynaud's, Esophageal hypomotility, Sclerodactyly, Telangiectasia
Ribonucleoprotein Antibody

Negative

Reassess H&P

Positive

Reassess H&P

SLE likely

SLE CTD unlikely

SLE unlikely

SLE likely

Diagnosis by other clinical criteria

Repeat ANA

Negative

Positive

DNA-binding (or Anti-DNA) CH50

Negative / normal

SSA, CH50, IgA (especially in children) Anti-Cardiolipin

Negative normal

Positive/Abnormal: Low CH50, Positive SSA, High Anti-Cardiolipin, and/or low IgA

Diagnosis by other clinical criteria

ANA-negative SLE variant likely

SLE Likely

To follow SLE patient:
Use history, physical examination, urinalysis, CBC, serum creatinine, and possibly one or more of the following: DNA-binding (Anti-DNA), C3, C4, CH50, Immune complexes

Positive/ abnormal: positive Sm and/or low C3, C4

Diagnosis by other clinical criteria

Limited cutaneous SSc (CREST Syndrome) likely

Anti-ENA, C3, C4

Negative/ abnormal

ANA pattern

Nucleolar

SSc likely

Consider Scl-70

Centromere

Pos

Neg

Diagnosis by other clinical criteria

Confirms Systemic Sclerosis

Consider MCTD

Confirms Polymyositis

Diagnosis by other clinical criteria. Consider HIV or HCV infection.

Other pattern

ENA

Neg

Pos

Unidentified ENA (non Sm RNP, SSA, or SSB)

Only RNP Pos

Pos

Neg

Jo-1

Pos

Neg

ENA, SSA

Positive SSA and/or SSB

Sjogren's Syndrome likely

Suspect drug-induced ANA, chronic autoimmune liver disease, chronic HCV infection, autoimmune thyroid disease, recent viral infection, elderly female population, etc

(See reverse side for references)

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References:

1. Schiel WCJ, Jason M. The diagnostic associations of patients with antinuclear antibodies referred to a community rheumatologist. *J Rheumatology* 1989;16:782-5
2. Hollingsworth PN, Pummer SC, Dawkins, RL. Anti-Nuclear Antibodies. In: Peter JB, Schoenfeld Y, eds. *Autoantibodies*. Amsterdam: Elsevier Science B.V., 1996:74-90
3. Wener M. Immunologic laboratory testing in rheumatology. *Primary Care Rheumatol* 1991; 1(2):2-10
4. Wener MH, Hutchinson K. Anti-Nuclear Antibodies Group. *Handbook of Diagnostic Immunology Tests*. Seattle: Community Services, Department of Laboratory Medicine, University of Washington, 3-4.
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